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#### Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

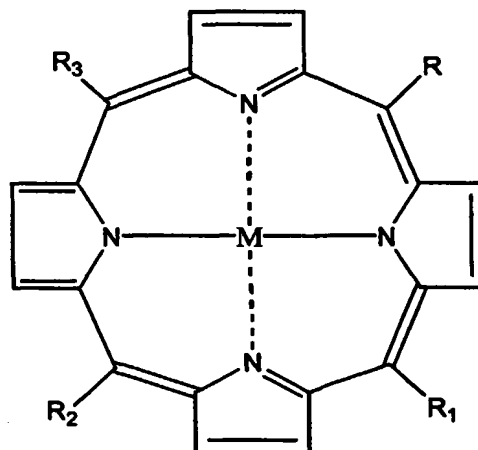
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— *with international search report*

— *before the expiration of the time limit for amending the  
claims and to be republished in the event of receipt of  
amendments*

[Continued on next page]

(54) Title: MESO-SUBSTITUTED PORPHYRINS



(I)

(57) Abstract: Meso-substituted porphyrins of general formula (I) suitable for the use as photosensitising agents, in particular in photodynamic therapy, are herein described.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/EP 03/11642

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D487/22 C07D519/00 A61K31/409 A61P31/00 A61P35/00  
A61K49/00  
/(C07D487/22,257:00,209:00,209:00,209:00,209:00)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K A61P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 01/96343 A (MOLTENI L E C DEI FLII ALITTI) 20 December 2001 (2001-12-20) cited in the application claims 1,9,11,14-16	1,6,10, 15-17
A	EP 0 906 758 A (MOLTENI L & C DEI FRATELLI ALI) 7 April 1999 (1999-04-07) claims 1,9,14	1,10,15
A	WO 02/10173 A (ANULM ASS NATAISE POUR L UTILISATION DE LA LUMIERE EN MEDICINE) 7 February 2002 (2002-02-07) claims 1,11	1,10
A	WO 98/33503 A (UNIV TEXAS (US)) 6 August 1998 (1998-08-06) abstract; claim 1	1,10
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

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## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/11642

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DICK, DIANE L. ET AL: "Molecular encapsulation: cyclodextrin-based analogs of heme-containing proteins" JOURNAL OF THE AMERICAN CHEMICAL SOCIETY , 114(7), 2664-9 CODEN: JACSAT; ISSN: 0002-7863, 1992, XP002280732 compound 7 -----	1

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

## Continuation of Box I.1

Although claims 19-21 are directed to a method of treatment or to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compounds.

## Continuation of Box I.2

Claims Nos.: -

Present claims 1-21 relate to an extremely large number of possible compounds. Support within the meaning of Article 84 EPC and/or disclosure within the meaning of Article 83 EPC is to be found, however, for only a very small proportion of the compounds claimed. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for those parts of the claims which appear to be supported and disclosed, namely those parts relating to the compounds of formula I where at least one of the substituents R3 is hydrogen or a decyloxy- or undecyloxy-phenyl group as described in pages 19 - 38.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/11642

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: —  
because they relate to subject matter not required to be searched by this Authority, namely:  
Although claims 19–21 are directed to a method of treatment or to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compounds.
2. ☒ Claims Nos.: —  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.  
☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/11642

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